

10/549,433

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L4 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:299537 CAPLUS

DOCUMENT NUMBER: 144:357642

TITLE: Preparation of quaternized chelidonine and related alkaloid derivatives for use in pharmaceutical compositions

INVENTOR(S): Nowicky, Wassyl

PATENT ASSIGNEE(S): Austria

SOURCE: PCT Int. Appl., 42 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

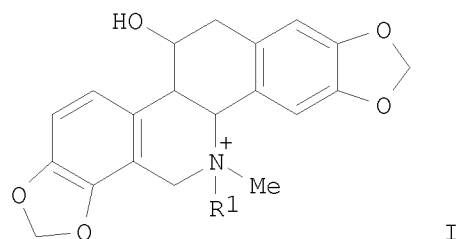
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006032380	A1	20060330	WO 2005-EP9699	20050909
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
CA 2593202	A1	20060330	CA 2005-2593202	20050909
EP 1833839	A1	20070919	EP 2005-782899	20050909
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU			
PRIORITY APPLN. INFO.:			EP 2004-22299	A 20040920
			WO 2005-EP9699	W 20050909

OTHER SOURCE(S): MARPAT 144:357642

GI



AB Quaternized alkaloid reaction products, such as I (R1 = OH, SH, alkyl, etc.), were prepared by reaction of an alkaloid with a quaternizing agent, such as thiotepa. These quaternized alkaloids were claimed for use in the treatment of immunol. or metabolic dysfunction, cancer, bacterial, fungal and viral infections, radiation damage, epilepsy, multiple sclerosis, skin diseases, postoperative wounds, pain, sleeping disease, herpes infections,

influenza virus infections, skin tumors, allergies, chronic fatigue syndrome, osteoporosis, rheumatic diseases, and scars. Chelidonine quaternary ammonium reaction product with thiotepa was subjected to a number of pharmacol. tests including anticancer activity.

IT 74052-25-8P 765900-94-5P

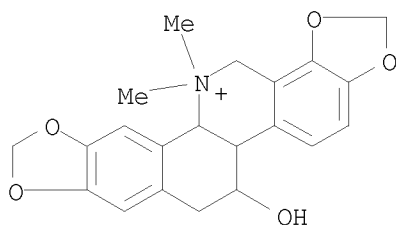
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(claimed compound; preparation of quaternized reaction products of chelidonine

and related alkaloids for therapeutic uses, such as treatment of cancer)

RN 74052-25-8 CAPLUS

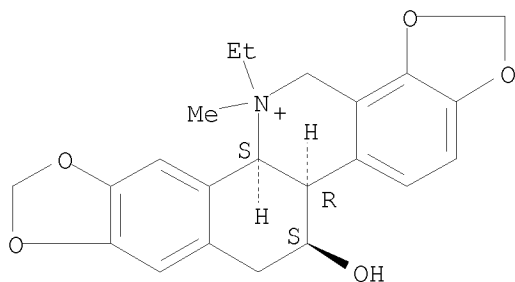
CN Chelidoninium, 5-methyl- (9CI) (CA INDEX NAME)



RN 765900-94-5 CAPLUS

CN 1,3-Dioxolo[4,5-i][1,3]dioxolo[4,5]benzo[1,2-c]phenanthridinium, 13-ethyl-5b,6,7,12b,13,14-hexahydro-6-hydroxy-13-methyl-, (5bR,6S,12bS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:799472 CAPLUS

DOCUMENT NUMBER: 141:319999

TITLE: Quaternary chelidonine and alkaloid derivatives preparation and antitumor activity

INVENTOR(S): Nowicky, Wassyl

PATENT ASSIGNEE(S): Austria

SOURCE: PCT Int. Appl., 45 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004082698	A1	20040930	WO 2004-EP2637	20040312
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1459753	A1	20040922	EP 2003-6015	20030318
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1532198	A	20040929	CN 2003-137355	20030619
AU 2004222661	A1	20040930	AU 2004-222661	20040312
CA 2517769	A1	20040930	CA 2004-2517769	20040312
BR 2004008386	A	20060321	BR 2004-8386	20040312
EP 1644012	A1	20060412	EP 2004-719983	20040312
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
JP 2006520763	T	20060914	JP 2006-504683	20040312
IN 2005KN01730	A	20060825	IN 2005-KN1730	20050831
NO 2005004130	A	20051219	NO 2005-4130	20050906
MX 2005PA09919	A	20060321	MX 2005-PA9919	20050915
US 20060154947	A1	20060713	US 2005-549433	20051017
PRIORITY APPLN. INFO.:			EP 2003-6015	A 20030318
			CH 2001-2094	A 20011115
			WO 2004-EP2637	A 20040312

OTHER SOURCE(S): MARPAT 141:319999

AB The invention relates to alkaloid reaction products obtainable by reaction with an alkylating agent, preferably thiotepa, whereafter unreacted alkylating agent and other water-soluble compds. are removed from the reaction mixture by washing with water or a suitable aqueous solvent, whereafter the reaction mixture is subjected to a treatment with strong acid, preferably HCl, to precipitate a water soluble salt of the reaction products.

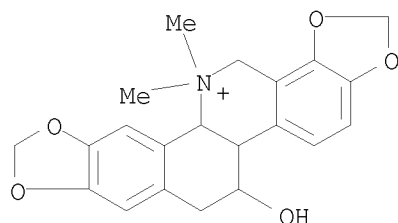
The precipitated reaction products comprise at least one quaternary alkaloid derivative and are suitable as drugs for prophylactic or therapeutic application, particularly in the treatment of immunol. or metabolic dysfunctions, and cancer. Chelidonine was reacted with thiotepa to give a quaternary ammonium derivative which was subjected to a number of pharmacol. tests including anticancer activity.

IT 74052-25-8, Chelidoninium, 5-methyl- 765900-94-5
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (quaternary chelidonine and alkaloid derivs. preparation and antitumor activity)

RN 74052-25-8 CAPLUS

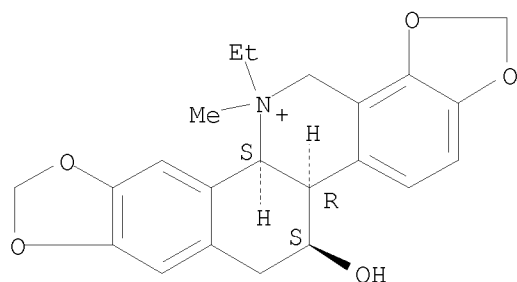
CN Chelidoninium, 5-methyl- (9CI) (CA INDEX NAME)

10/549,433



RN 765900-94-5 CAPLUS
CN 1,3-Dioxolo[4,5-i][1,3]dioxolo[4,5]benzo[1,2-c]phenanthridinium,
13-ethyl-5b,6,7,12b,13,14-hexahydro-6-hydroxy-13-methyl-, (5bR,6S,12bS)-
(CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1984:511231 CAPLUS

DOCUMENT NUMBER: 101:111231

ORIGINAL REFERENCE NO.: 101:16997a,17000a

TITLE: Stereochemistry of hydrobenzo[c]phenanthridine
alkaloids. Chiroptical properties and absolute
configuration of (+)-14-epicorynoline, (+)-corynoline,
(+)-chelidonine and related compounds

AUTHOR(S): Takao, Narao; Kamigauchi, Miyoko; Iwasa, Kinuko;
Morita, Noriko; Kuriyama, Kaoru

CORPORATE SOURCE: Women's Pharm. Univ., Kobe, 658, Japan

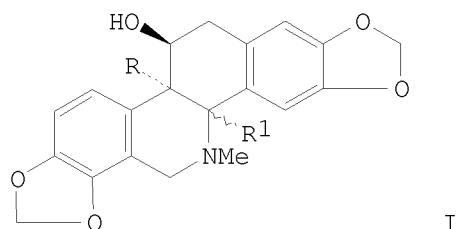
SOURCE: Archiv der Pharmazie (Weinheim, Germany) (1984),
317(3), 223-37

CODEN: ARPMAS; ISSN: 0365-6233

DOCUMENT TYPE: Journal

LANGUAGE: German

GI



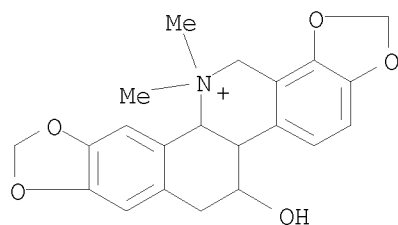
AB Correlation between the CD spectra and the stereochem. properties of (+)-14-epicorynoline (I, R = Me, R1 = β -H), (+)-corynoline (I, R = Me, R1 = α -H), (+)-corynoxine, (+)-chelidonine (I, R = H, R1 = α -H) and their derivs. and of (+)-homochelidonine was determined

IT 72551-84-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 72551-84-9 CAPLUS

CN Chelidoninium, 5-methyl-, iodide (9CI) (CA INDEX NAME)



● I⁻

L4 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1980:437185 CAPLUS

DOCUMENT NUMBER: 93:37185

ORIGINAL REFERENCE NO.: 93:6009a,6012a

TITLE: Anticancer and antibiotic properties of
N-methylchelidonine methyl sulfate

AUTHOR(S): Zbierska, Janina; Kowalewski, Zdzislaw

CORPORATE SOURCE: Inst. Przem. Zielarskiego, Poznan, 61-707, Pol.

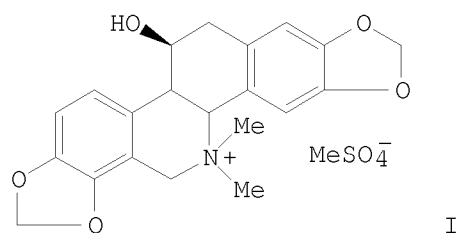
SOURCE: Herba Polonica (1979), 25(4), 311-16

CODEN: HPBIA9; ISSN: 0018-0599

DOCUMENT TYPE: Journal

LANGUAGE: Polish

GI



AB N-Methylchelidonine Me sulfate (I) [74052-26-9] was prepared from chelidonine [476-32-4] and di-Me sulfate. I showed greater antitumor activity than chelidonine in vitro, but similar activity in vivo. In antimicrobial testing in vitro, I showed activity similar to that of its parent against bacteria, but greater antifungal activity. I was 10-fold more active than chelidonine against *Penicillium notatum*.

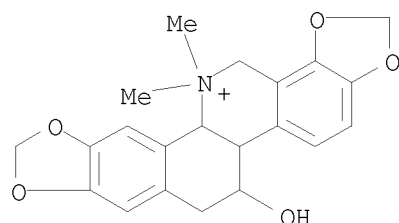
IT 74052-26-9P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (preparation and antimicrobial and antitumor activity of)

RN 74052-26-9 CAPLUS

CN Chelidoninium, 5-methyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 74052-25-8
 CMF C21 H22 N O5



CM 2

CRN 21228-90-0
 CMF C H3 O4 S

Me-O-SO₃⁻

L4 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1980:69348 CAPLUS

DOCUMENT NUMBER: 92:69348

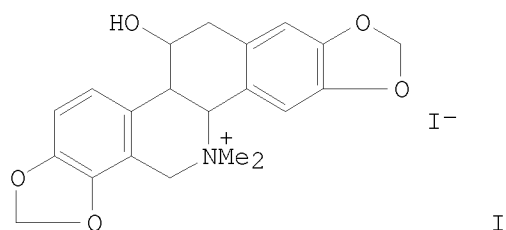
ORIGINAL REFERENCE NO.: 92:11297a,11300a

TITLE: Anticancer and antibiotic properties of chelidonine methyl iodide

AUTHOR(S): Zbierska, Janina; Kowalewski, Zdzislaw

10/549,433

CORPORATE SOURCE: Inst. Przem. Zielarskiego, Poznan, Pol.
SOURCE: Herba Polonica (1979), 25(3), 209-17
CODEN: HPBIA9; ISSN: 0018-0599
DOCUMENT TYPE: Journal
LANGUAGE: Polish
GI

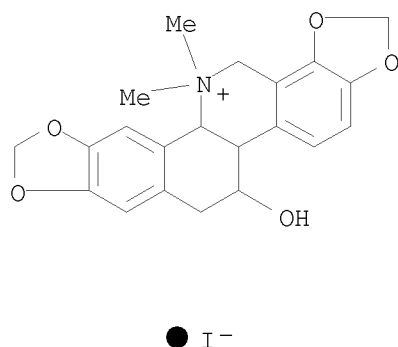


AB The anticancer activity of chelidonine Me iodide (I) [72551-84-9] was superior to that of chelidonine [476-32-4] in in vitro expts., but the 2 compds. showed similar activities in in vivo tests. The antimicrobial activity of I was slightly greater than that of chelidonine when tested against 20 strains of microorganisms (bacteria, yeast, fungi). Physicochem. studies related to the structure of I are also reported.

IT 72551-84-9
RL: BIOL (Biological study)
(antibiotic and neoplasm inhibiting activity of)

RN 72551-84-9 CAPLUS

CN Chelidoninium, 5-methyl-, iodide (9CI) (CA INDEX NAME)



L4 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1973:466627 CAPLUS

DOCUMENT NUMBER: 79:66627

ORIGINAL REFERENCE NO.: 79:10767a,10770a

TITLE: Alkaloids of Papaveraceae. XVII. Alkaloids of Corydalis incisa. 10. Structure of (+)-14-epicorynoline

AUTHOR(S): Takao, Narao; Bersch, Hans W.; Takao, Sachiko

CORPORATE SOURCE: Kobe Women's Coll. Pharm., Kobe, Japan

SOURCE: Chemical & Pharmaceutical Bulletin (1973), 21(5), 1096-102

CODEN: CPBTAL; ISSN: 0009-2363

DOCUMENT TYPE: Journal

LANGUAGE: German

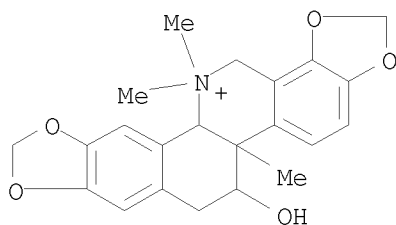
GI For diagram(s), see printed CA Issue.

AB (+)-14-Epicorynoline, isolated from *Corydalis incisa* had structure I based on spectral and chemical properties.

IT 42881-70-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 42881-70-9 CAPLUS

CN Chelidoninium, 5,13-dimethyl-, iodide, (11 α)- (9CI) (CA INDEX NAME)● I⁻

L4 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1924:27180 CAPLUS

DOCUMENT NUMBER: 18:27180

ORIGINAL REFERENCE NO.: 18:3679b-e

TITLE: Chelidonium alkaloids. III

AUTHOR(S): Gadamer, J.; Dieterle, H.; Stichel, Anna; Theyssen, M.; Winterfeld, K.

SOURCE: Arch. Pharm. (1924), 262, 249-77

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB cf. C. A. 15, 1902. Since the same ring system must be involved in the 4 alkaloids: chelidonine, homochelidonine, sanguinarine and chelerythrine, expts. were undertaken to determine the position of the O atoms functioning in the OH, OMe and O₂CH₂ groups. The most readily available of these alkaloids, chelidonine, was chosen as the subject for special study the following derivs. being prepared and characterized: N-acetylanhydrochelidonine, C₂₂H₁₉O₅N, from anhydrous chelidonine (c), Ac₂O and AcONa at the boiling temperature, crystals, m. 152°, yields ψ -anhydrochelidonine, C₂₀H₁₇O₄N, m. 89-89.5° (HCl salt needles, m. 204-5°). O-Acetylchelidonine, C₂₂H₂₁O₆N, from (c) and Ac₂O in the cold, tablets, m. 165-6°, [α]_D 110° yields with Me₂SO₄ followed by boiling with NaOH solution methylanhydrochelidonine, C₂₁H₁₉O₄N, needles, m. 152-3° (the latter forming with MeI methylanhydrochelidonine methiodide, C₂₂H₂₂O₄NI, needles, m. 242-3°). From the methiodide were obtained methylanhydrochelidonine methonitrate, C₂₂H₂₂O₆N, needles, m. 260-1°, and methylanhydrochelidonine methochloride, needles, m. 215-7°. On exhaustive methylation with MeI, (c) yields at 120° chelidonine methine, C₂₁H₂₁O₅N, rods, m. 145-6°, [α]_D -271-3° (methiodide, C₂₂H₂₄O₅NI, needles, m. 232-4° (decomposition)). Exhaustive methylation with Me₂SO₄, however, converts (c) into a base identical with that resulting from the action of

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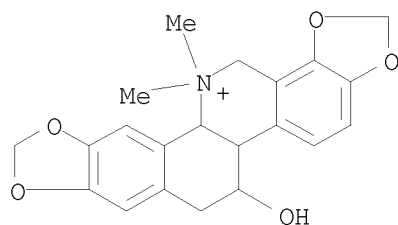
Me2SO4 on O-acetylchelidonine, together with some O-methylchelidonine.
Reduction of methylanhydrochelidonine methochloride with NaHg leads to the
formation of NMe3 and a N-free product, C19H14O4, tablets, m.
142-3°. Methylanhydrochelidonine methohydroxide, C22H23O5N, (from
the methiodide and Ag2O) decomposes on heating at 140°.

IT 72551-84-9P, Chelidonine, methiodide

RL: PREP (Preparation)
(preparation of)

RN 72551-84-9 CAPLUS

CN Chelidoninium, 5-methyl-, iodide (9CI) (CA INDEX NAME)



● I⁻

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(FILE 'HOME' ENTERED AT 14:25:41 ON 22 AUG 2008)

FILE 'REGISTRY' ENTERED AT 14:26:08 ON 22 AUG 2008

L1 STRUCTURE UPLOADED

L2 0 S L1

L3 6 S L1 FULL

FILE 'CAPLUS' ENTERED AT 14:26:39 ON 22 AUG 2008

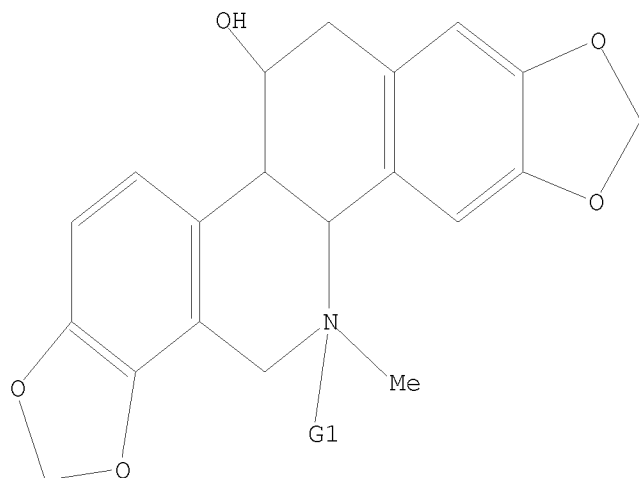
L4 7 S L3

=> d l1

L1 HAS NO ANSWERS

L1 STR

10/549,433



G1 H, Me, Et, n-Pr

Structure attributes must be viewed using STN Express query preparation.

=> s l3/thu

7 L3
1040588 THU/RL
L5 2 L3/THU
(L3 (L) THU/RL)

=> d ibib abs hitstr 1-2

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:299537 CAPLUS

DOCUMENT NUMBER: 144:357642

TITLE: Preparation of quaternized chelidone and related alkaloid derivatives for use in pharmaceutical compositions

INVENTOR(S): Nowicky, Wassyl

PATENT ASSIGNEE(S): Austria

SOURCE: PCT Int. Appl., 42 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
WO 2006032380	A1	20060330	WO 2005-EP9699	20050909
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,			

IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
 CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
 GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
 KG, KZ, MD, RU, TJ, TM

CA 2593202 A1 20060330 CA 2005-2593202 20050909

EP 1833839 A1 20070919 EP 2005-782899 20050909

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
 IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL,
 BA, HR, MK, YU

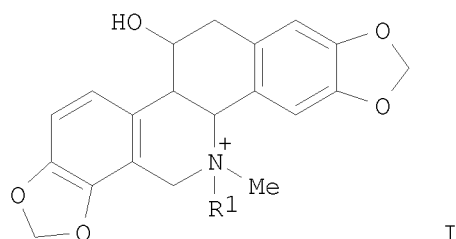
PRIORITY APPLN. INFO.:

EP 2004-22299 A 20040920

WO 2005-EP9699 W 20050909

OTHER SOURCE(S): MARPAT 144:357642

GI



AB Quaternized alkaloid reaction products, such as I (R1 = OH, SH, alkyl, etc.), were prepared by reaction of an alkaloid with a quaternizing agent, such as thiotepa. These quaternized alkaloids were claimed for use in the treatment of immunol. or metabolic dysfunction, cancer, bacterial, fungal and viral infections, radiation damage, epilepsy, multiple sclerosis, skin diseases, postoperative wounds, pain, sleeping disease, herpes infections, influenza virus infections, skin tumors, allergies, chronic fatigue syndrome, osteoporosis, rheumatic diseases, and scars. Chelidonine quaternary ammonium reaction product with thiotepa was subjected to a number of pharmacol. tests including anticancer activity.

IT 74052-25-8P 765900-94-5P

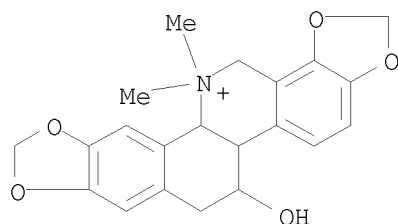
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(claimed compound; preparation of quaternized reaction products of chelidonine

and related alkaloids for therapeutic uses, such as treatment of cancer)

RN 74052-25-8 CAPLUS

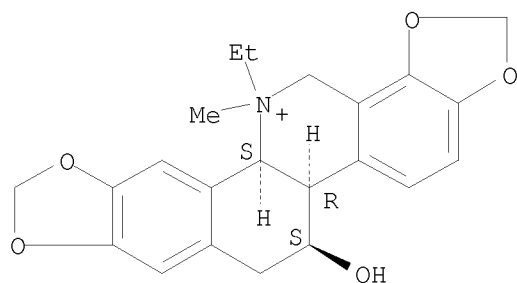
CN Chelidonium, 5-methyl- (9CI) (CA INDEX NAME)



10/549,433

RN 765900-94-5 CAPLUS
CN 1,3-Dioxolo[4,5-i][1,3]dioxolo[4,5]benzo[1,2-c]phenanthridinium,
13-ethyl-5b,6,7,12b,13,14-hexahydro-6-hydroxy-13-methyl-, (5bR,6S,12bS)-
(CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:799472 CAPLUS
DOCUMENT NUMBER: 141:319999
TITLE: Quaternary chelidonine and alkaloid derivatives
preparation and antitumor activity
INVENTOR(S): Nowicky, Wassyl
PATENT ASSIGNEE(S): Austria
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004082698	A1	20040930	WO 2004-EP2637	20040312
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1459753	A1	20040922	EP 2003-6015	20030318
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
CN 1532198	A	20040929	CN 2003-137355	20030619
AU 2004222661	A1	20040930	AU 2004-222661	20040312
CA 2517769	A1	20040930	CA 2004-2517769	20040312
BR 2004008386	A	20060321	BR 2004-8386	20040312
EP 1644012	A1	20060412	EP 2004-719983	20040312
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK			

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JP 2006520763	T	20060914	JP 2006-504683	20040312
IN 2005KN01730	A	20060825	IN 2005-KN1730	20050831
NO 2005004130	A	20051219	NO 2005-4130	20050906
MX 2005PA09919	A	20060321	MX 2005-PA9919	20050915
US 20060154947	A1	20060713	US 2005-549433	20051017
PRIORITY APPLN. INFO.:			EP 2003-6015	A 20030318
			CH 2001-2094	A 20011115
			WO 2004-EP2637	A 20040312

OTHER SOURCE(S): MARPAT 141:319999

AB The invention relates to alkaloid reaction products obtainable by reaction with an alkylating agent, preferably thiotepa, whereafter unreacted alkylating agent and other water-soluble compds. are removed from the reaction mixture by washing with water or a suitable aqueous solvent, whereafter the reaction mixture is subjected to a treatment with strong acid, preferably HCl, to precipitate a water soluble salt of the reaction products.

The precipitated reaction products comprise at least one quaternary alkaloid derivative

and are suitable as drugs for prophylactic or therapeutic application, particularly in the treatment of immunol. or metabolic dysfunctions, and cancer. Chelidonine was reacted with thiotepa to give a quaternary ammonium derivative which was subjected to a number of pharmacol. tests

including

anticancer activity.

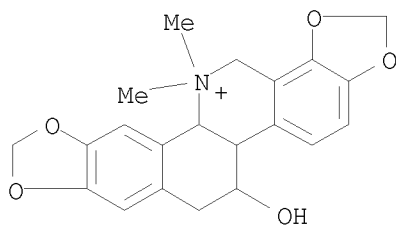
IT 74052-25-8, Chelidoninium, 5-methyl- 765900-94-5

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(quaternary chelidonine and alkaloid derivs. preparation and antitumor activity)

RN 74052-25-8 CAPLUS

CN Chelidoninium, 5-methyl- (9CI) (CA INDEX NAME)

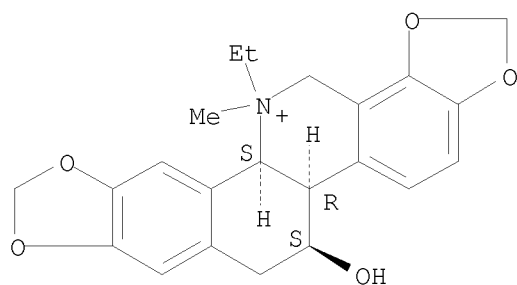


RN 765900-94-5 CAPLUS

CN 1,3-Dioxolo[4,5-i][1,3]dioxolo[4,5]benzo[1,2-c]phenanthridinium, 13-ethyl-5b,6,7,12b,13,14-hexahydro-6-hydroxy-13-methyl-, (5bR,6S,12bS)- (CA INDEX NAME)

Absolute stereochemistry.

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REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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(FILE 'HOME' ENTERED AT 14:25:41 ON 22 AUG 2008)

FILE 'REGISTRY' ENTERED AT 14:26:08 ON 22 AUG 2008

L1 STRUCTURE UPLOADED

L2 0 S L1

L3 6 S L1 FULL

FILE 'CAPLUS' ENTERED AT 14:26:39 ON 22 AUG 2008

L4 7 S L3

L5 2 S L3/THU

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